

Table 4.1-27. Fuel group and technology combination that compose the No-Action Alternative.

Fuel group	1	2	3	4	5	6	7	8
	Prepare for Direct Co-Disposal	Repackage and Prepare to Ship	Melt and Dilute	Mechanical Dilution	Vitrification Technologies	Electro- metallurgical Treatment	Conventional Processing	Continued Wet Storage
A. Uranium and Thorium Metal Fuels	–	–	–	–	–	–	–	Yes
B. Materials Test Reactor-like Fuels	–	–	–	–	–	–	–	Yes
C. HEU/LEU Oxides and Silicides Requiring Resizing or Special Packaging	–	–	–	–	–	–	–	Yes
D. Loose Uranium Oxide in Cans	–	–	–	–	–	–	–	Yes
E. Higher Actinide Targets	–	–	–	–	–	–	–	Yes
F. Non-Aluminum-Clad Fuels ^a	–	–	–	–	–	–	–	Yes

a. The environmental impacts of this case were analyzed in the Programmatic SNF EIS (DOE 1995b).

HEU = highly enriched uranium.

LEU = low enriched uranium.

Table 4.1-28. Fuel group and technology combination that compose the Minimum Impact Alternative.

Fuel group	1	2	3	4	5	6	7	8
	Prepare for Direct Co-Disposal	Repackage and Prepare to Ship	Melt and Dilute	Mechanical Dilution	Vitrification Technologies	Electro- metallurgical Treatment	Conventional Processing	Continued Wet Storage
A. Uranium and Thorium Metal Fuels	Yes	—	—	—	—	—	—	—
B. Materials Test Reactor-like Fuels	Yes	—	—	—	—	—	—	—
C. HEU/LEU Oxides and Silicides Requiring Resizing or Special Packaging	Yes	—	—	—	—	—	—	—
D. Loose Uranium Oxide in Cans	—	—	Yes	—	—	—	—	—
E. Higher Actinide Targets	—	Yes	—	—	—	—	—	—
F. Non-Aluminum-Clad Fuels ^a	—	Yes	—	—	—	—	—	—

a. The environmental impacts of this case were analyzed in the Programmatic SNF EIS (DOE 1995b).

HEU = highly enriched uranium.

LEU = low enriched uranium.

Table 4.1-29. Fuel group and technology combination that compose the Direct Disposal Alternative.

Fuel group	1	2	3	4	5	6	7	8
	Prepare for Direct Co-Disposal	Repackage and Prepare to Ship	Melt and Dilute	Mechanical Dilution	Vitrification Technologies	Electro- metallurgical Treatment	Conventional Processing	Continued Wet Storage
A. Uranium and Thorium Metal Fuels	–	–	–	–	–	–	Yes	–
B. Materials Test Reactor-like Fuels	Yes	–	–	–	–	–	–	–
C. HEU/LEU Oxides and Silicides Requiring Resizing or Special Packaging	Yes	–	–	–	–	–	Yes ^a	–
D. Loose Uranium Oxide in Cans	–	–	Yes	–	–	–	Yes ^b	–
E. Higher Actinide Targets	–	Yes	–	–	–	–	–	–
F. Non-Aluminum-Clad Fuels ^a	–	Yes	–	–	–	–	–	–

a. For failed or sectioned Oak Ridge Reactor fuel, High-Flux Isotope Reactor fuel, and Tower Shielding Reactor fuel, Heavy Water Components Reactor fuel, and Mark-42 targets.

b. For Sterling Forest Oxide fuel.

c. The environmental impacts of this case were analyzed in the Programmatic SNF EIS (DOE 1995b).

HEU = highly enriched uranium.

LEU = low enriched uranium.

Table 4.1-30. Fuel group and technology combination that compose the Preferred Alternative.

Fuel group	1	2	3	4	5	6	7	8
	Prepare for Direct Co-Disposal	Repackage and Prepare to Ship	Melt and Dilute	Mechanical Dilution	Vitrification Technologies	Electro- metallurgical Treatment	Conventional Processing	Continued Wet Storage
A. Uranium and Thorium Metal Fuels	–	–	–	–	–	–	Yes	–
B. Materials Test Reactor-like Fuels	–	–	Yes	–	–	–	–	–
C. HEU/LEU Oxides and Silicides Requiring Resizing or Special Packaging	–	–	Yes	–	–	–	Yes ^a	–
D. Loose Uranium Oxide in Cans	–	–	Yes	–	–	–	Yes ^b	–
TC E. Higher Actinide Targets	–	–	–	–	–	–	–	Yes ^c
F. Non-Aluminum-Clad Fuels ^c	–	Yes	–	–	–	–	–	–
<p>a. For failed or sectioned Oak Ridge Reactor fuel, High-Flux Isotope Reactor fuel, and Tower Shielding Reactor fuel, Heavy Water Components Test Reactor fuel, and Mark-42 targets.</p> <p>b. For Sterling Forest Oxide fuel.</p> <p>TC c. The environmental impacts of this case were analyzed in the Programmatic SNF EIS (DOE 1995b).</p> <p>HEU = highly enriched uranium.</p> <p>LEU = low enriched uranium.</p> <p>NA = not applicable; not decided in this EIS.</p>								

Table 4.1-31. Fuel group and technology combination that compose the Maximum Impact Alternative.

Fuel group	1	2	3	4	5	6	7	8
	Prepare for Direct Co-Disposal	Repackage and Prepare to Ship	Melt and Dilute	Mechanical Dilution	Vitrification Technologies	Electro- metallurgical Treatment	Conventional Processing	Continued Wet Storage
A. Uranium and Thorium Metal Fuels	–	–	–	–	–	–	Yes	–
B. Materials Test Reactor-like Fuels	–	–	–	–	–	–	Yes	–
C. HEU/LEU Oxides and Silicides Requiring Resizing or Special Packaging	–	–	–	–	–	–	Yes	–
D. Loose Uranium Oxide in Cans	–	–	–	–	–	–	Yes	–
TC E. Higher Actinide Targets	–	Yes	–	–	–	–	Yes ^a	–
F. Non-Aluminum-Clad Fuels ^b	–	Yes	–	–	–	–	–	–
TC a. The environmental impacts of processing Mark-18 targets was analyzed in the Interim Management of Nuclear Materials Final Environmental Impact Statement (DOE 1995a). b. The environmental impacts of this case were analyzed in the Programmatic SNF EIS (DOE 1995b). HEU = highly enriched uranium. LEU = low enriched uranium.								